

STATE OF MISSOURI PERFORMANCE FUNDING FOR
HIGHER EDUCATION

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Missouri Department of Higher Education
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BACKGROUND

National

The history of performance funding nationally began with the question of accountability on campuses – how much oversight is needed, and who maintains institutional standards of excellence? Since the 1980s, performance-based accountability has taken three forms: performance funding, which links state funds directly to how an individual campus does on performance metrics; performance budgeting, which is less formulaic and rigorous, but still takes into consideration a college's outcomes; and performance reporting, which does not tie into funding at all but is reported to policy makers and the public who can then hold the schools accountable in different ways.

In recent years, there has been a strong push towards performance funding for higher education. As of January 2018, 35 states will have implemented or are implementing some form of performance based funding. These include comprehensive systems, which include all sectors of public higher education, as well as ones that are only applicable to a specific sector or sectors of institutions. These numbers are drastically different from 2013, for example. That year, only 12 states had implemented a performance funding system, while four were in the process of adoption.

State

Missouri has a history of allocating additional state resources on the basis of performance through the Funding for Results program from the late 1990s. However, beginning with the 2001 recession, funding for performance funding was eliminated as an add-on funding mechanism. Between then and 2011, there was no visibility for performance funding with the exception of unsuccessful budget requests for pilot projects that the Coordinating Board for Higher Education (board) brought forward in the late 2000s. With national trends in higher education finance moving towards a greater emphasis on performance driving the allocation of state dollars, Missouri revisited the issue of performance funding.

The HEF model, the board's funding structure during this time, was a three-tier model predicated on a stable and adequate base funding. Simply, it divided funding requests into three categories: base or core funding, strategic initiatives, and performance funding. The performance funding component was the least developed, prompting the Commissioner of Higher Education to establish the Performance Funding Task Force in early 2011. In the development of performance indicators, the model sought measures with certain key characteristics. These characteristics included:

1. Reliance on existing and externally validated data
2. Alignment with established statewide goals
3. Being straightforward in nature and easily understood

The Task Force's recommendations were adopted the following year by the board. The resulting model contained five performance indicators for each institution, and institutions could earn one-fifth of the increase in funding allocated to performance by demonstrating success on one of its five measures. This process was first used by the Governor and General Assembly to develop the FY 2014 appropriation for public institutions.

Legislation codifying the performance funding process was passed during the 2014 legislative session as part of SB 492. The legislation established fiscal year 2015 as the starting point for determining core increases. The statute provides that at least 90 percent of any increase to core funding should be allocated based on institutional success on adopted performance measures. The remaining ten percent of any increase should be distributed to address funding inequities within each sector using an equity formula developed by each institutional sector. The amount an institution earns through the performance funding process is added to the core amount and the sum becomes the core funding level the following year.

SB 492 also requires a performance item “to measure student job placement in a field or position associated with the student’s degree level and pursuit of a graduate degree.” According to the statute, this measure may not be used “in any year in which the state unemployment rate has increased from the previous calendar year’s state unemployment rate.” The determination of whether to include the measure is based on the labor and data statistics reported by month by the Missouri Department of Labor and Industrial Relations (<http://labor.mo.gov/data>). Since the statute requires this determination to be based on a calendar year, MDHE compares the reported unemployment rate from June of the most recently completed calendar year to the rate reported for June of the current calendar year. If the rate reported for the current June is equal to or less than the previous June, the measure is included.

IMPLEMENTATION OF THE PERFORMANCE FUNDING MODEL

Current Performance Measures

Although the performance funding model remains relatively unchanged from the basic structure described in statute, periodic review and revision are essential to maintaining a system that is relevant and up-to-date. The current system of measures was adopted by the board in December 2017 and is based on recommendations from a broad-based task force. The adoption process included consultation with public higher education institutions and other interested parties.

The current performance funding model is designed to answer the following five questions.

- Are students completing certificates and degrees?
- Are students mastering what they study?
- Are graduates getting jobs or continuing their education?
- Are college costs affordable?
- Are Missouri’s colleges and universities spending funds judiciously?

The model uses six measures to evaluate the state’s two-year colleges, state technical college, and four-year universities. The measures are organized around the categories of student success and progress, efficiency and affordability, and graduate outcomes. All measures are given equal weight, as each measure represents one-sixth of the total performance allocation. According to statute, performance on the model is used to determine the portion of funding above the previous core allocated to each higher education institution. While there is some variability by sector regarding the number of measures in the categories of student success and progress and efficiency and affordability, each sector’s measures include a single measure for graduate outcomes. Additional detail about specific measures is provided later in this document.

Successful Performance

Most performance measures are evaluated based on a three-year rolling average with success being defined for each institution individually as improvement over that institution's performance from the previous year. The base year for each measure is also a three-year average, and all numbers are reported in tenths.

While a three-year rolling average was adopted to smooth out any changes in the related rates or numbers, an anomalous year, high or low, can negatively impact an institution for several years. As a result a year-over-year comparison is an option that may only be chosen by an institution in the year following a failure to demonstrate improvement using the three year rolling average method. Once chosen, this method must be used until the conclusion of the current three-year performance funding cycle.

The final component of successful performance is sustained excellence, which is measured compared to an established benchmark rather than improvement over the previous year. This component acknowledges that institutions that have achieved a level of excellence on a particular measure have little room for improvement but should be encouraged to sustain this high level over time. Performance in the top third of the relevant comparator group is the threshold for sustained excellence for most measures. However, for the "improvements on professional/occupational licensure tests" measure, sustained excellence is considered to have been met with a passage rate of 90 percent or above, and sustained excellence for the assessment in general education and major field measures is dependent upon the institution's admissions selectivity category. If external benchmarks for sustained excellence are not established for a particular measure, then improved performance over the previous year using the three-year rolling average or year-to-year improvement is the method used to evaluate success on that measure.

Weighting of Measure Data

In order to recognize their growing importance in the workforce, the model incorporates a weighting factor for STEM, Health, and Allied Health completions into any existing measure where applicable and appropriate, typically measures that involve degree completions. In addition, in recognition of the need close the state achievement gap by increasing participation of under-represented populations, the model also incorporates a weighting factor for students that are eligible for the federal Pell Grant. Pell Grant eligibility is widely used as a proxy for students in these groups.

STEM fields include a wide range of disciplines, and there are different ways to identify the disciplines included in STEM. For example, the National Science Foundation defines STEM fields broadly, including not only mathematics, natural sciences, engineering, and computer and information sciences, but also social/behavioral sciences such as psychology, economics, sociology, and political science. A similar but somewhat narrower list is published by the federal Immigration and Customs Enforcement agency that deals with student visas. In April of 2011, the National Center for Education Statistics issued a report entitled, "Postsecondary Awards in Science, Technology, Engineering and Mathematics, by State: 2001 and 2009," that used some, but not all, of the fields published by ICE. Thus, there is not one generally accepted list of STEM instructional programs used by the federal government or the higher education community. For our purposes,

the STEM fields closely mirror the ones used by the NSF and in the NCES study but add fields of particular importance to Missouri such as agriculture, natural resources/conservation, STEM education fields, and health professionals.

STEM Fields for Missouri Performance Funding (by CIP code):

- 01- Agriculture, agriculture operations and related sciences
- 03- Natural resources and conservation
- 10- Communication technologies/technicians and support services
- 11- Computer information sciences and support services
- 13- Education (STEM-related: 13.0603, 13.1309, 13.1311, 13.1316, 13.1319, 13.1320, 13.1321, 13.1322, 13.1323, 13.1329, 13.1335)
- 14- Engineering
- 15- Engineering technologies and engineering-related fields
- 21- Technology education/industrial arts
- 26- Biological and biomedical sciences
- 27- Mathematics and statistics
- 29- Military technologies and applied sciences
- 30- Interdisciplinary Studies (STEM-related: 30.0101, 30.0601, 30.0801, 30.1001, 30.1801, 30.1901, 30.2501, 30.3201)
- 40- Physical sciences
- 41- Science technologies/technicians
- 47- Mechanic and repair technologies/technicians

Health and Allied Health Fields for Missouri Performance Funding (by CIP code):

- 51- Health and Allied Health

It is important that the model recognize the contributions community colleges make toward STEM graduates by also giving weight to their AS and AAS STEM, Health, and Allied Health graduates.

Each STEM and Pell Grant eligible graduate is given an additional 50 percent weight in any applicable completion measure. An example to illustrate how this works for a given institution is provided below:

- Total graduates, 2016 – 500 in all fields, 30 in STEM fields and 26 as Pell eligible
- Thus, the total number of 2016 weighted graduates counted for performance funding would be $500 + (30 * 0.5) + (26 * 0.5) = 500 + 15 + 13 = 528$.

Change Process

Although consistency of measures over time is a crucial factor in the validity of the performance funding process, there must be a process for periodic revision to components of the model in order to reflect changes at institutions and in the broader environment. A regular review of the model is conducted every three years. Between now and the next regular review, which will occur in 2020, statutes require the department to evaluate “the effectiveness of the performance funding measures, including their effect on statewide postsecondary, higher education, and workforce goals.” The resulting report must be submitted to the governor, the joint committee on education, and the house and senate by October 31, 2019, and every four years after that.

Because some changes may not coincide with the three-year review window, a process was developed that must be followed to request and receive approval for those changes. In order to ensure maximum transparency for the change process, all requested changes must be submitted to and approved by the board. As a result of the lead time necessary for changes to be reflected in data reports, proposals for change must be approved by board at or before its regular June meeting. Those materials must be delivered to the Missouri Department of Higher Education (MDHE) office by May 1.

PUBLIC TWO-YEAR INSTITUTION PERFORMANCE PLAN

Based on recommendations from the Performance Funding Task Force and action by the board, the following performance indicators are applicable to all public community colleges and Missouri State University – West Plains:

Student Success and Progress

1. Three-year completion rate for first-time, full-time students, including students who successfully complete* a certificate or degree or successfully transfer to a four-year institution
2. Successful completion* of all credit hours
3. Percentage of career/technical graduates who pass their required licensure/certification examination

Efficiency and Affordability

4. Non-core expenditures (research, public service, and institutional support) as a percent of total expenditures
5. In-district tuition and fees as a percent of in-district median household income (MHI)

Graduate Outcomes

6. Total degree and certificate completers competitively employed, serving in the military, attending a two- or four-year institution, or found in state wage records following graduation

Success on each measure is defined as improvement over the previous year's performance (both measured with three-year rolling averages), year-over-year improvement or, where applicable and appropriate, sustained performance in the top third of an established comparator group.

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Comparator Group

The primary comparator group for public community colleges and Missouri State University–West Plains is the National Community College Benchmarking Project – a comprehensive national data collection and reporting consortium designed for two year colleges with over 280 colleges participating nationwide, including all Missouri community colleges.

*‘Successfully complete’ as defined by the institution

PUBLIC TECHNICAL COLLEGE PERFORMANCE PLAN

The following performance indicators were adopted for the State Technical College of Missouri:

Student Success and Progress

1. Three-year graduation rate
2. Completions per full-time equivalent student (FTE)*
3. Improvements in assessments in the major field

Efficiency and Affordability

4. Core expenditures as a percent of total expenditures
5. Tuition and fees as percent of statewide median household income (MHI)

Graduate Outcomes

6. Job placement (180 day follow-up)

Success on each measure is defined as improvement over the previous year's performance (both measured with three-year rolling averages), year-over-year improvement or, where applicable, sustained performance relative to an external benchmark (see below).

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Comparator Group

The comparator group for State Technical College of Missouri is selected by MDHE staff from the universe of IPEDS reporting institution, based on preset criteria: other public two-year institutions in a similar range according to 12-month headcount enrollment, state appropriations, and not awarding general education or liberal arts degrees (defined as within the CIP 24 family).

Missouri public institutions will not be assigned other Missouri public peers who are not in the same admissions selectivity category. MDHE staff reserve the right to annually review selection criteria to ensure all institutions have at least 10 peers using updated IPEDS data.

*Completions will be weighted as described on pages four and five.

PUBLIC FOUR-YEAR INSTITUTION PERFORMANCE PLAN

Based on recommendations from the Performance Funding Task Force and action by the Coordinating Board, the following performance indicators are applicable to all public four-year institutions:

Student Success and Progress

1. Completions per full-time equivalent student (FTE)*
2. Percent of students meeting or exceeding the established performance threshold on one of the following assessments:**
 - a. Improvements in assessment of general education OR
 - b. Improvements in assessments in the major field OR
 - c. Improvements on professional/occupational licensure tests***

Efficiency and Affordability

3. Total operating salaries per student FTE as a percent of statewide median household income
4. Percent of total education and general expenditures expended on the core mission (instruction, research and public service)
5. Net tuition and fee revenue from Missouri undergraduate residents per Missouri undergraduate student FTE as a percent of statewide median household income

Graduate Outcomes

6. Institutions administer the First Destination Survey developed by the National Association of Colleges and Employers (NACE). Students are counted as successful if employed full time, participating in a volunteer or service program, serving in the military, or enrolled in continuing education in the six months following graduation.

Success on each measure is defined as improvement over the previous year's performance (both measured with three-year rolling averages), year-over-year improvement or, where applicable, sustained performance relative to an external benchmark.

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Comparator Groups

The comparator groups for four-year institutions are selected by MDHE staff from the universe of IPEDS reporting institutions, based on preset criteria.

For doctoral institutions, the comparator group includes other doctoral institutions in a similar range according to 12-month headcount enrollment, total non-auxiliary expenditures, the percentage of total non-auxiliary expenditures expended on research, and state appropriations as a percentage of total expenditures. The University of Missouri system campuses use this comparator group.

The comparator group for bachelor's and master's-level four-year institutions (non-HBCUs) will be other bachelor's- and master's-level four-year institutions in a similar range according to 12-month headcount enrollment, total non-auxiliary expenditures, state appropriations as a percentage of total expenditures, and mean 75th percentile ACT or SAT scores for first-time degree-seeking

undergraduates. The universities using this comparator group are Missouri Southern State University, Missouri State University, Missouri Western State University, Northwest Missouri State University, Southeast Missouri State University, and Truman State University.

Peers for four-year HBCUs will be other bachelor's- and master's-level four-year institutions in a similar range according to 12-month headcount enrollment, total non-auxiliary expenditures, state appropriations as a percentage of total expenditures, OR HBCUs serving a total enrollment which is over 75 percent minority and an undergraduate population which is over 75 percent Pell eligible. The universities using this comparator group are Harris-Stowe State University and Lincoln University.

Missouri public institutions will not be assigned other Missouri public peers who are not in the same admissions selectivity category. MDHE staff reserve the right to annually review selection criteria to ensure all institutions have at least 10 peers using updated IPEDS data.

*Completions will be weighted as described on pages four and five.

**The assessment for each institution will be assigned by the MDHE based on historical selection and can only be changed as part of the general review of the performance funding model.

***Excludes teacher certification.